

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Custodis et al. (JP 2003-502715). The Examiner notes that for reference purposes, the English equivalent of the Japanese reference will be used (US 6,734,841 to Seibold et al.).

Regarding claim 1, Custodis discloses a colour tuneable lighting element in figure 1 comprising an assembly of dielectric barrier discharge lamps (item 2), each of them filled with a noble gas or a noble gas mixture, wherein a Xe excimer discharge generates invisible UV radiation, which is converted into visible light by one or several phosphors being coated onto the inner surface of the bulb (column 4, lines 43-45) and wherein the visible light of several dielectric barrier discharge lamps is mixed by optical means and is emitted homogeneously (column 3, lines 35-39).

Regarding claim 2, Custodis discloses a colour tuneable lighting element as claimed in claim 1 comprising an assembly of several electric barrier discharge lamps emitting red, green or

blue light (see FIG. 1), wherein said lamps are equipped with one or several phosphors selected from the following groups:

2.1 red: $\text{Y}_2\text{O}_3:\text{Eu}$ (column 4, lines 46-47; in related patent (see US equivalent Zachau et al., US 5,714,835) as disclosed by Custodis, see column 2, lines 28-29)

2.3 blue: $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$ (column 4, lines 46-47; in related patent (see US equivalent Zachau et al., US 5,714,835) as disclosed by Custodis, see column 2, lines 29-30).

Regarding claim 3, Custodis discloses a colour tuneable lighting element as claimed in claim 1 comprising an assembly of several dielectric barrier discharge lamps emitting blue or yellow light (see FIG. 1), wherein said lamps are equipped with one or several phosphors selected from the following groups:

3.1 blue: $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$ (column 4, lines 46-47; in related patent (see US equivalent Zachau et al., US 5,714,835) as disclosed by Custodis, see column 2, lines 29-30).

Regarding claim 4, Custodis discloses a colour tuneable lighting element as claimed in claim 1 comprising an assembly of several dielectric barrier discharge lamps emitting blue-green or orange light, wherein said lamps are equipped with one or several phosphors selected from the following groups: 4.1 blue-green: $\text{BaMgAl}_{10}\text{O}_{17}:\text{Eu}$ (column 4, lines 46-47; in related patent (see US equivalent Zachau et al., US 5,714,835) as disclosed by Custodis, see column 2, lines 29-30).

Regarding claim 5, Custodis discloses a colour tuneable lighting element as claimed in claims 1, wherein the brightness of each of the lamps may be varied independently by a suitable electronic driver unit (see FIG. 1).

Regarding claim 6, Custodis discloses a colour tuneable lighting element as claimed in claim 1, wherein the brightness of the lamps is varied by suitable optical filter (item 8) means in such a way, that the resulting colour of the emitted light is white (column 1, lines 26-33).

Regarding claim 7, Custodis discloses use of an assembly of dielectric barrier discharge lamps as claimed claim 1 for the generation of saturated colourful light (see FIG. 1).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie K. Walford whose telephone number is (571)-272-6012. The examiner can normally be reached on Monday-Friday, 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2879

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